

# Rigid Overhead Catenary

High-performance feeding system  
for urban and main-line rail transport

Alstom developed Rigid Overhead Catenary completing its Cariboni feeding systems offer for electrification in tunnels, stations and bridge passages. Rigid Overhead Catenary is suitable for a wide range of applications, from urban to main-line rail transport.

## GENERAL DESCRIPTION

Alstom's Rigid Overhead Catenary solution is a reliable and cost-effective alternative to conventional overhead contact lines in all the cases where space constraints are very stringent. Typical applications include the retrofit of older tunnels, newly-built small-diameter tunnels (reduced construction costs), and depots.

The contact line in a rigid catenary is composed of an aluminium conductor profile with a copper contact wire clamped underneath. Supports are designed in accordance with the line voltage and with the anchoring possibilities offered by the civil works.

## CUSTOMER BENEFITS

### Easy installation and maintenance

With Rigid Overhead Catenary, the contact wire is not at mechanical tension, thereby eliminating the need for adjustments or additional loads on supports. This leads to the easy and fast replacement of the contact wire and any other component, and quick and cost-effective maintenance, with reduced number of spare parts required.

### High performance

Compared to traditional catenary, Alstom's Rigid Overhead Catenary is a more compact solution with reduced number of feeders. It offers a more stable interface between the pantograph and the contact wire with minimum uplift. Other benefits include higher fire resistance and improved RAMS performance.

### Easy integration

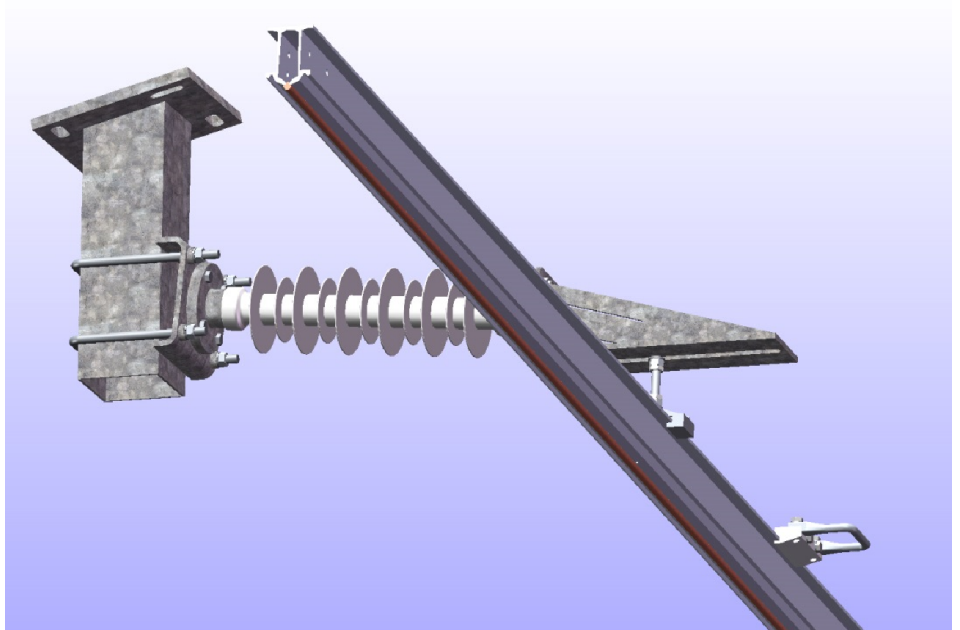
Rigid Overhead Catenary allows for easy extension, conversion, upgrade or replacement of existing lines, and thanks to the reduced number and variety of types of components, it offers high interchangeability.

### Suitable for different applications

With minor adjustments, the same product is applicable to various systems, from 750 V<sub>DC</sub> urban light rail and metro to 25 kV<sub>AC</sub> railways, covering a wide range of different speeds.

## HIGHLIGHTS

- **Up to 80 % less components**  
Versus conventional catenary
- **Quick maintenance**  
Any component replaceable in less than 2 hours



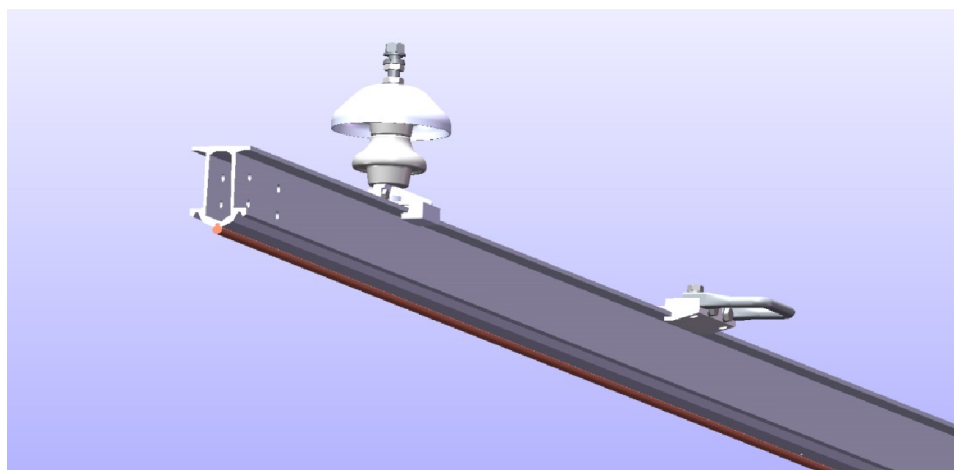
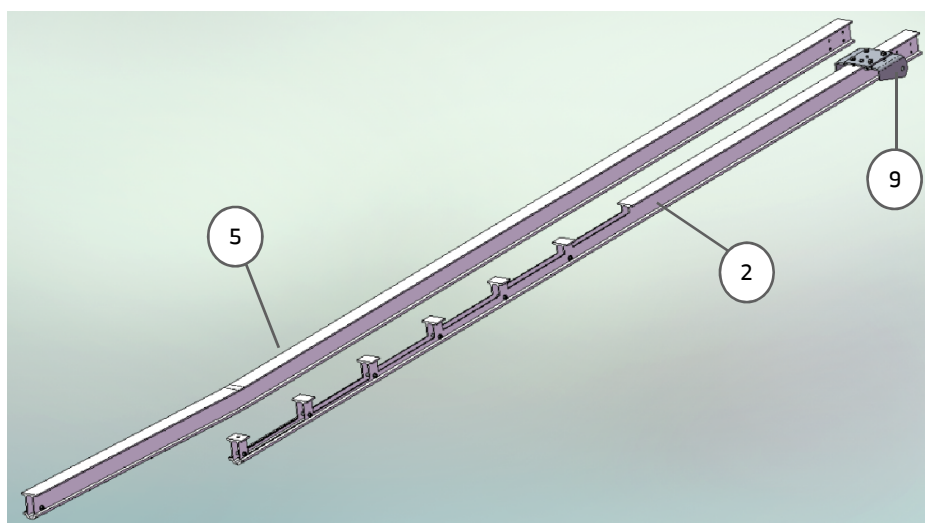
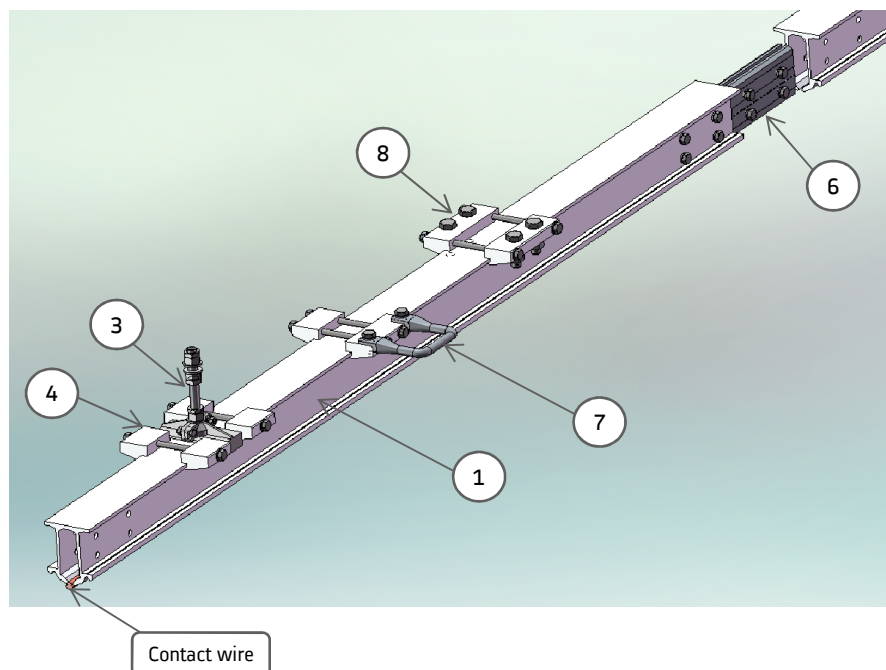
## TECHNICAL INFORMATION

The following components can be supplied:

| Item no. | Component            |
|----------|----------------------|
| 1        | Rigid bar            |
| 2        | Transition element   |
| 3        | Hanger clamp         |
| 4        | Anchor clamp         |
| 5        | Ramp                 |
| 6        | Splices              |
| 7        | Earth connector      |
| 8        | Power feed block     |
| 9        | Heavy duty anchorage |

The following installation tools can be supplied:

- Wire mounting trolley
- Greasing pump & device
- Cutting pattern
- Drilling pattern



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